

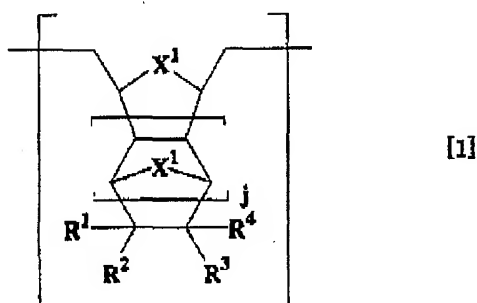
# AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

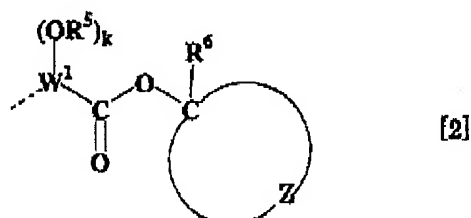
## LISTING OF CLAIMS:

1.-25. (Canceled)

26. (New) A hydrogenated ring-opening metathesis polymer which contains at least one of structural unit [B] and structural unit [C] and which optionally contains structural unit [A] with structural unit [A] having the following general formula [1]:



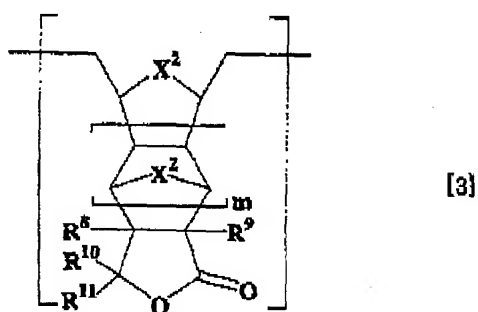
wherein, at least one of R¹ to R⁴ represents a functional group having a tertiary ester group of a cyclic alkyl of the following general formula [2]:



wherein, the chain line represents a connecting means, R⁵ represents a hydrogen atom, a linear, branched or cyclic alkyl group having 1 to 10 carbon atoms, a linear, branched or cyclic alkoxyalkyl group having 2 to 10 carbon atoms, or a linear, branched or cyclic acyl group having 1 to 10 carbon atoms, R⁶ represents a linear, branched or cyclic alkyl group having 1 to 10 carbon atoms, W¹ represents a single bond or a (k+2)-valent hydrocarbon

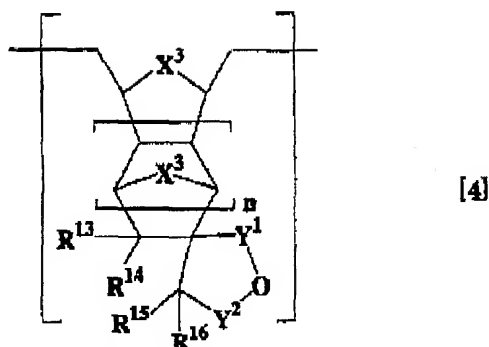
group having 1 to 10 carbon atoms, Z represents a divalent hydrocarbon group having 2 to 15 carbon atoms, and forms a single ring or a cross-linked ring together with carbon atoms to be bonded, k represents 0 or 1, and the remaining groups of  $R^1$  to  $R^4$  are selected each independently from a hydrogen atom, linear, branched or cyclic alkyl groups having 1 to 20 carbon atoms, halogen atoms, linear, branched or cyclic halogenated alkyl groups having 1 to 20 carbon atoms, linear, branched or cyclic alkoxy groups having 1 to 20 carbon atoms, linear, branched or cyclic alkoxyalkyl groups having 2 to 20 carbon atoms, linear, branched or cyclic alkylcarbonyloxy groups having 2 to 20 carbon atoms, arylcarbonyloxy groups having 6 to 20 carbon atoms, linear, branched or cyclic alkylsulfonyloxy groups having 1 to 20 carbon atoms, arylsulfonyloxy groups having 6 to 20 carbon atoms, linear, branched or cyclic alkoxy carbonyl groups having 2 to 20 carbon atoms, or linear, branched or cyclic alkoxy carbonylalkyl groups having 3 to 20 carbon atoms, and  $X^1$ 's are the same or different and represent -O- or  $-CR^7_2-$  wherein  $R^7$  represents a hydrogen atom or a linear or branched alkyl group having 1 to 10 carbon atoms, j represents an integer of 0 or 1 to 3,

structural unit [B] having the following general formula [3]:



wherein  $R^8$  to  $R^{11}$  each independently represent a hydrogen atom or a linear, branched or cyclic alkyl group having 1 to 10 carbon atoms, and  $X^2$ 's are the same or different and represent -O- or  $-CR^{12}_2-$  wherein  $R^{12}$  represents a hydrogen atom or a linear or branched alkyl group having 1 to 10 carbon atoms, m represents an integer of 0 or 1 to 3, and

structural unit [C] having the following general formula [4]:



wherein  $R^{13}$  to  $R^{16}$  each independently represent a hydrogen atom or a linear, branched or cyclic alkyl group having 1 to 10 carbon atoms, and  $X^3$ s are the same or different and represent -O- or  $-CR^{17}_2-$  wherein  $R^{17}$  represents a hydrogen atom or a linear or branched alkyl group having 1 to 10 carbon atoms, one of  $Y^1$  and  $Y^2$  represents  $-(C=O)-$  and the other of  $Y^1$  and  $Y^2$  represents  $-CR^{18}_2-$  wherein  $R^{18}$  represents a hydrogen atom or a linear or branched alkyl group having 1 to 10 carbon atoms,  $n$  represents an integer of 0 or 1 to 3,

wherein at least one of  $X^1$  in the structural unit [A] of the general formula [1],  $X^2$  in the structural unit [B] of the general formula [3] and  $X^3$  in the structural unit [C] of the general formula [4] represents -O-, and

wherein the molar ratio of [A]/([B] and [C]) is 0/100 to 99/1.

27. (New) The hydrogenated ring-opening metathesis polymer according to Claim 26 wherein the molar ratio of the structural unit [A] of the general formula [1] to the structural unit [B] of the general formula [3] and the structural unit [C] of the general formula [4] ([A]/([B] and [C])) is 25/75 to 90/10.

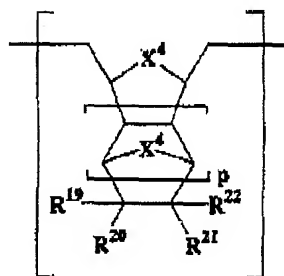
28. (New) The hydrogenated ring-opening metathesis polymer according to Claim 26 wherein the molar ratio of the structural unit [A] of the general formula [1] to the structural unit [B] of the general formula [3] and the structural unit [C] of the general formula [4] ([A]/([B] and [C])) is 30/70 to 85/15.

29. The hydrogenated ring-opening metathesis polymer according to Claim 26 wherein at least one of  $X^1$  in the structural unit [A] of the general formula [1],  $X^2$  in the structural unit [B] of the general formula [3] and  $X^3$  in the structural unit [C] of the general formula [4] represents -O-, and the others represent -CH<sub>2</sub>-.

30. (New) The hydrogenated ring-opening metathesis polymer according to Claim 26 wherein a functional group having a tertiary ester group of a cyclic alkyl of the general formula [2] selected as at least one of  $R^1$  to  $R^4$  in the general formula [1] is a 1-alkylcyclopentyl ester, 1-alkylnorbornyl ester or 2-alkyl-2-adamantyl ester.

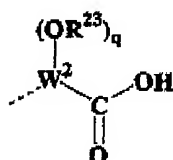
31. (New) The hydrogenated ring-opening metathesis polymer according to Claim 26 wherein  $W^1$  in the general formula [2] represents a single bond.

32. (New) The hydrogenated ring-opening metathesis polymer according to Claim 26 wherein the material further contains a structural unit [D] of the following general formula [5]:



[5]

wherein at least one of  $R^{19}$  to  $R^{22}$  represents a functional group having a carboxyl group of the following general formula [6]:



[6]

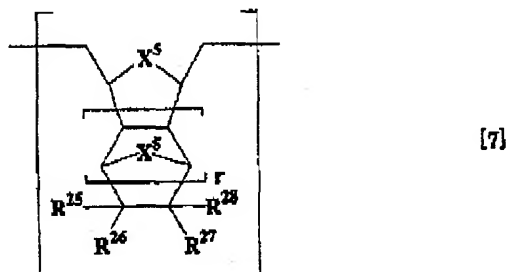
wherein the chain line represents a connecting means,  $R^{23}$  represents a hydrogen atom, a linear, branched or cyclic alkyl group having 1 to 10 carbon atoms, a linear, branched or cyclic alkoxyalkyl group having 2 to 10 carbon atoms, or a linear, branched or cyclic acyl group having 1 to 10 carbon atoms,  $W^2$  represents a single bond or a  $(q+2)$ -valent hydrocarbon group having 1 to 10 carbon atoms,  $q$  represents 0 or 1, and the remaining groups of  $R^{19}$  to  $R^{22}$  are selected each independently from a hydrogen atom, linear, branched or cyclic alkyl groups having 1 to 20 carbon atoms, halogen atoms, linear, branched or cyclic halogenated alkyl groups having 1 to 20 carbon atoms, linear, branched or cyclic alkoxy groups having 1 to 20 carbon atoms, linear, branched or cyclic alkoxyalkyl groups having 2 to 20 carbon atoms, linear, branched or cyclic alkylcarbonyloxy groups having 2 to 20 carbon atoms, arylcarbonyloxy groups having 6 to 20 carbon atoms, linear, branched or cyclic alkylsulfonyloxy groups having 1 to 20 carbon atoms, arylsulfonyloxy groups having 6 to 20 carbon atoms, linear, branched or cyclic alkoxycarbonyl groups having 2 to 20 carbon atoms, or linear, branched or cyclic alkoxycarbonylalkyl groups having 3 to 20 carbon atoms, and  $X^4$ 's are the same or different and represent  $-O-$  or  $-CR^{24}_2-$  wherein  $R^{24}$  represents a hydrogen atom or a linear or branched alkyl group having 1 to 10 carbon atoms, and  $p$  represents an integer of 0 or 1 to 3.

33. (New) The hydrogenated ring-opening metathesis polymer according to Claim 32 wherein the molar ratio of the structural unit [A] of the general formula [1], the structural unit [B] of the general formula [3] and the structural unit [C] of the general formula [4] to the structural unit [D] of the general formula [5]  $([A]+[B]+[C])/[D])$  is from 100/0 to 20/80.

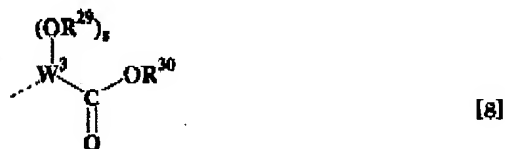
34. (New) The hydrogenated ring-opening metathesis polymer according to Claim 32 wherein  $X^4$  in the general formula [5] represents  $-O-$  or  $-CH_2-$ .

35. (New) The hydrogenated ring-opening metathesis polymer according to Claim 32 wherein  $W^2$  in the general formula [6] represents a single bond.

36. (New) The hydrogenated ring-opening metathesis polymer according to Claim 26 wherein the polymer further contains a structural unit [E] of the following general formula [7]:



wherein at least one of  $R^{25}$  to  $R^{28}$  represents a functional group having a carboxylate group of the following general formula [8]:



wherein the chain line represents a connecting means,  $R^{29}$  represents a hydrogen atom, a linear, branched or cyclic alkyl group having 1 to 10 carbon atoms, a linear, branched or cyclic alkoxyalkyl group having 2 to 10 carbon atoms, or a linear, branched or cyclic acyl group having 1 to 10 carbon atoms,  $R^{30}$  represents a linear or branched alkyl group having 1 to 10 carbon atoms, a linear, branched or cyclic alkoxyalkyl group having 2 to 10 carbon atoms, or a linear, branched or cyclic halogenated alkyl group having 1 to 20 carbon atoms,  $W^3$  represents a single bond or a (S+2)-valent hydrocarbon group having 1 to 10 carbon atoms, s represents 0 or 1 and the remaining groups of  $R^{25}$  to  $R^{28}$  are selected each independently from a hydrogen atom, linear, branched or cyclic alkyl groups having 1 to 20 carbon atoms, halogen atoms, linear, branched or cyclic halogenated alkyl groups having 1 to 20 carbon atoms, linear, branched or cyclic alkoxy groups having 1 to 20 carbon atoms, linear, branched or cyclic alkoxyalkyl groups having 2 to 20 carbon atoms, linear, branched or cyclic alkylcarbonyloxy groups having 2 to 20 carbon atoms, arylcarbonyloxy groups

having 6 to 20 carbon atoms, linear, branched or cyclic alkylsulfonyloxy groups having 1 to 20 carbon atoms, arylsulfonyloxy groups having 6 to 20 carbon atoms, linear, branched or cyclic alkoxy carbonyl groups having 2 to 20 carbon atoms, or linear, branched or cyclic alkoxy carbonyl alkyl groups having 3 to 20 carbon atoms, and  $X^5$ s are the same or different and represent -O- or  $-CR^{31}_2-$  wherein  $R^{31}$  represents a hydrogen atom or a linear or branched alkyl group having 1 to 10 carbon atoms, and r represents an integer of 0 or 1 to 3.

37. (New) The hydrogenated ring-opening metathesis polymer according to Claim 36 wherein the molar ratio of the structural unit [A] of the general formula [1], the structural unit [B] of the general formula [3] and the structural unit [C] of the general formula [4] to the structural unit [E] of the general formula [7]  $([A]+[B]+[C])/[E]$  is from 100/0 to 40/60.

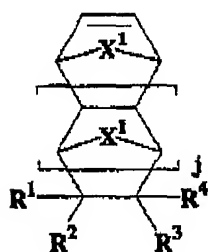
38. (New) The hydrogenated ring-opening metathesis polymer according to Claim 36 wherein  $X^6$  in the general formula [7] represents -O- or  $-CH_2-$ .

39. (New) The hydrogenated ring-opening metathesis polymer according to Claim 36 wherein  $W^3$  in the general formula [7] represents a single bond.

40. (New) The hydrogenated ring-opening metathesis polymer according to Claim 36 wherein the number-average molecular weight in terms of polystyrene measured by GPC is from 500 to 200,000.

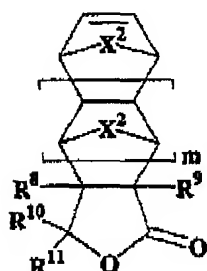
41. (New) A method of producing a hydrogenated ring-opening metathesis polymer of Claim 26, comprising

polymerizing at least one cyclic olefin monomer of general formula [10] and/or general formula [11] and optionally a cyclic olefin monomer of general formula [9] with a ring-opening metathesis catalyst, and hydrogenating the resulting polymer in the presence of a hydrogenation catalyst wherein general formula [9] is:



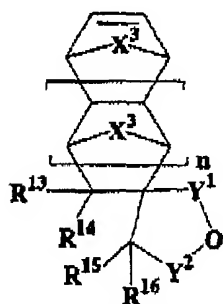
[9]

wherein  $R^1$  to  $R^4$ ,  $X^1$  and  $j$  are as defined in general formula [1], general formula [10] is:



[10]

wherein,  $R^8$  to  $R^{11}$ ,  $X^2$  and  $m$  are as defined in the general formula [3] and general formula [11] is:



[11]

wherein,  $R^{13}$  to  $R^{16}$ ,  $X^3$ ,  $Y^1$ ,  $Y^2$  and  $n$  are as defined in the general formula [4], and wherein at least one of  $X^1$  in the general formula [9],  $X^2$  in the general formula [10] and  $X^3$  in the general formula [11] represents  $-O-$ .

42. (New) The production method according to Claim 41 wherein the charging molar ratio of a cyclic olefin monomer of the general formula [9] to a cyclic olefin monomer of the general formula [10] and a cyclic olefin monomer of the general formula [11] is from 0/100 to 99/1.



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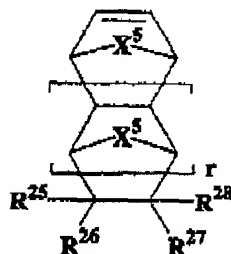
43. (New) The production method according to Claim 41 wherein the charging molar ratio of a cyclic olefin monomer of the general formula [9] to a cyclic olefin monomer of the general formula [10] and a cyclic olefin monomer of the general formula [11] is from 25/75 to 90/10.

44. (New) The production method according to Claim 41 wherein at least one of  $X^1$  in a cyclic olefin monomer of the general formula [9],  $X^2$  in a cyclic olefin monomer of the general formula [10] and  $X^3$  in a cyclic olefin monomer of the general formula [11] represents  $-O-$ , and the others represent  $-CH_2-$ .

45. (New) The production method according to Claim 41 wherein a functional group having a tertiary ester group of a cyclic alkyl of the general formula [2] selected as at least one of  $R^1$  to  $R^4$  in the general formula [9] is a 1-alkylcyclopentyl ester, 1-alkylnorbornyl ester or 2-alkyl-2-adamantyl ester.

46. (New) The production method according to Claim 41 wherein at least part of a tertiary ester group of a cyclic alkyl in the general formula [2] is decomposed, after hydrogenation, into a carboxyl group.

47. (New) The production method according to Claim 41 wherein the method further polymerizes a cyclic olefin monomer of the following general formula [12]:



[12]

wherein,  $R^{25}$  to  $R^{28}$ ,  $X^5$  and  $r$  are as defined in the general formula [7].

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48. (New) The production method according to Claim 47 wherein at least part of an ester group is decomposed, after hydrogenation, into a carboxyl group.

49. (New) The production method according to Claim 41 wherein the ring-opening metathesis catalyst is a living ring-opening metathesis catalyst.

50. (New) The production method according to Claim 41 wherein polymerization is conducted with a living ring-opening metathesis catalyst in the presence of an olefin or diene.